Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks/Arguments begin on page 15 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously amended) A method for detection and identification of constituents of extracts from plants or animals, natural or synthetic sources possessing medicinal value, using chromatographic finger printing techniques, the method comprising the steps of:

i. extracting organic or organo-metallic compounds from plants or animal, natural or synthetic sources using a suitable solvent;

ii. subjecting the extract obtained in step i. to separation based on pH and polarity, using High Pressure Liquid Chromatography (HPLC) techniques;

iii. generating contour and 3D chromatograms of the constituents eluted in step ii.;

iv. converting the 3-D and contour chromatogram obtained into a colored image, analyzing the colored image for its individual colors using the co-ordinates denoting all its 3-dimensional properties of said image by using a newly-developed in-built software;

v. denoting the concentrations of the various constituents eluted with time;

vi. generating a chromatogram based on color analyzed, having peaks at various retention times along with conjugative properties of the constituents;

vii. identifying the compounds in said ingredients by the Ultra Violet and Visible electromagnetic radiation absorptive properties of the various constituents in the image;

viii. identifying, determining and classifying the compounds eluted as polar, medium polar and less or non-polar based on the polarity and conjugative properties;

ix. generating a barcode for a selected peak using the X-axis as Retention Time, the Y-axis as Wavelength, R as number of Red Pixels, G as number of Green Pixels and B as number of Blue Pixels; and

x. generating a database of fingerprints and barcodes and identifying the respective compounds of the extract.

Claim 2 (previously amended) A method as claimed in claim 1, wherein the solvents with different polarities are used for extraction based on the hydrophilic and hydrophobic nature of the constituents present in the sample

under study, and ethyl alcohol is used as a solvent for preparation and for standardization of medicinal extracts.

Claim 3 (previously amended) A method as claimed in claim 1, wherein the fingerprints are developed for the same medicinal extract under different pH ranges.

Claim 4 (previously amended) A method as claimed in claim 1, wherein the HPLC technique used is by employing any commercially available HPLC apparatus with the Photo Diode Array detector, preferably with a gradient or ternary system of pumps.

Claim 5 (previously amended) A method as claimed in claim 1, wherein the method is carried out using standard analytical parameters like extraction with ethyl alcohol, maintaining a run time of 0-60 minutes, eluting with a mobile phase of acetonitrile along with a phosphate buffer having a pH in the range of 5.5-7.5, and an Ultra Violet and Visible detector having the electromagnetic radiation range of 200-800nm for fingerprinting, chemical and therapeutic standardization.

Claim 6 (previously amended) A method as claimed in claim 1, wherein the solvent used in step iii. is selected from a group consisting of the non-aqueous, organic and aqueous, water or buffer at a known pH are selected based on the range of polarity.

Claim 7 (previously amended) A method as claimed in claim 1, wherein converting the contour chromatograms into a colored image consisting of conjugative and polarity properties of the constituents of the medicinal extract under study.

Claim 8 (previously amended) A method as claimed in claim 1, wherein the therapeutic efficacy of a medicinal extract (single or formulated) is assessed using the quality of the constituents present in a particular polarity and UV-Vis absorptive zone.

Claim 9 (previously amended) A method as claimed in claim 1, wherein the software generates a barcode for a selected peak or peaks or image using the X-axis as Retention Time, the Y-axis as Wavelength, R as number of Red

Pixels, G as number of Green Pixels and B as number of Blue Pixels as the coordinates, provided by the software, which makes the product propriety for an industry.

Claims 10 through 18 (*provisionally* cancelled)

Claim 19 (previously amended) A method as claimed in claim 1 which is a computational method of chromatographic finger printing, chemical and therapeutic standardization and bar coding of organic and organo-metallic molecules from a plant, animal or a naturally available or man-made materials used as medicines, the method comprising

(a) selecting plant, animal or a naturally-available or man-made material which possess medicinal value, and extracting the constituents,

(b) separating the constituents into individual compounds, generating and converting the 3-D and contour chromatograms into fingerprints,

(c) analyzing the fingerprints using the software developed, and

(d) interpreting the data.

Claim 20 (previously amended) A method as claimed in claim 1, wherein

step iv provides an in-built software for chemical analysis of the constituents present in the extract under study and their conjugative and polarity properties indicating the therapeutic efficacy of the medicine as per the traditional concepts of the medicine using the new software developed.

Claim 21 (previously amended) A method as claimed in claim 1, wherein step iv an in-built software provides a novel concept for obtaining chromatographic finger printing of material having medicinal value for the quick identification of the actual profile of the compounds present in the medicine under use along with the therapeutic efficacy of the constituents.

Claim 22 (previously amended) A method as claimed in claim 1 wherein in step iv an in-built software provides a novel chromatographic finger printing of herbal medicines and formulations using the contour and 3-D chromatograms of the herbal medicines and formulations is proposed and they are developed on a Photo Diode Array Detector (PDA) of a High Pressure Liquid Chromatography, which delineates the data of the spectral properties of the constituents present in the material having medicinal value, presented in a specific order of polarity, generated under similar experimental analytical

conditions.

Claim 23 (*provisionally* cancelled)

Claim 24 (previously amended) A method as claimed in claim 1, wherein in step vii "The Chromatographic Fingerprint" is the blue print of the constituents present in an herbal medicine or formulation for an assay and quick identification of the medicine under study.

Claim 25 (previously amended) A method as claimed in claim 1, wherein same standard analytical parameters like extraction with same solvent ethyl alcohol, same run time 0-60min, same mobile phase acetonitrile along with phosphate buffer having a pH in the range of 5.5-7.5, and a same UV-Visible Range of 200-800nm for fingerprinting and chemical and therapeutic standardization.

Claim 26 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of adulterated, substituted, contradictual and commercial food and drug samples and to

identify the pure and impure.

Claim 27 (previously amended) A method as claimed in claim 1, wherein fingerprint data obtained are used for identifying the chemical constituents present in it for the purpose of process standardization, quality control activities and therapeutic standardization of Allopathic, Ayurvedic, Homoeo, Siddha,Unani, Chinese, Tibetan, Kampo (Japanese) medicines.

Claim 28 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of variation of chemical constituents due to various ecological factors, geological factors, genotypic and phenotypic variations (in plants) in naturally occurring samples and to identify and standardize the chemical constituents in them.

Claim 29 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of chemical constituents in synthetically prepared samples and to identify and standardize the chemical constituents in them for chemical and therapeutic standardization whichever is applicable.

Claim 30 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of chemical constituents in herbal products of single medicine samples and to identify the chemical constituents in them for chemical and therapeutic standardization.

Claim 31 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of chemical constituents in herbal products of formulated medicine samples and to identify the chemical constituents in them for chemical and therapeutic standardization.

Claim 32 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of variation of chemical constituents in biological samples and to identify and standardize the chemical constituents in them for chemical and therapeutic standardization.

Claim 33 (previously amended) A method as claimed in claim 1, wherein the fingerprinting data obtained are used for the study of variation of chemical constituents in different brands of products of single and formulated food and

medicine samples and to identify the chemical constituents in them for chemical and therapeutic standardization.

Claim 34 (previously amended) A method as claimed in claim 1, wherein in step ix preparation of a database of a large number samples gives many generalizations of the therapeutic efficacy of a particular group of plants, classified as a group for a particular disease or therapeutic classification.

Claim 35 (previously amended) A method as claimed in claim 1, wherein fingerprint data of medicines facilitates the categorization and quantification of the constituents of a medicine based on polarity and conjugation from 3-D and contour chromatograms and assess the therapeutic efficacy of the medicine on which humors it is going to act (vitiate).

Claim 36 (previously amended) A method as claimed in claim 1, wherein fingerprint data obtained enables the understanding and standardization of the Physico-Chemical properties of the medicines like color for the use of therapeutic standardization of medicines and humors (Tri Doshas) using conjugative and polarity properties given in the chromatographic fingerprints.

Claim 37 (previously amended) A method as claimed in claim 1, wherein fingerprint data obtained enables the understanding and standardization of the Physico-Chemical properties of the medicines like Tastes (Rasa) like Sour, Salty, Pungent, Bitter, Astringent (Amla, Lavana, Katu, Tikta, Kashaya as described in Ayurveda) used for therapeutic standardization using conjugative and polarity properties shown in the chromatographic fingerprints.

Claim 38 (previously amended) A method as claimed in claim 1, wherein fingerprint data obtained enables the understanding and standardization of the Physico-Chemical properties of the medicines like Property, Potency, Metabolite, Specific properties like Chirality of the molecules (Guna, Veerya Vipaka, Prabhava) used for the therapeutic standardization using conjugative and polarity properties of the individual constituents and the whole medicine shown in the chromatographic fingerprints.

Claim 39 (previously amended) A method as claimed in claim 1, wherein fingerprint data obtained enables the understanding and standardization of the Physico-Chemical properties (Gunas) of the medicines like Cold, Hot, Slow in

action, Sharp in action, Heavy, Light, Soft Lubricated Supple, Dry (Sheeta, Ushan, Manda, Teekshna, Guru, Laghu, Snigdha, Rooksha as described in Ayurveda) used for the therapeutic standardization using conjugative and polarity properties of the medicinal extracts shown in chromatographic fingerprints.

Claims 40 through 47 (*provisionally* cancelled)

Claim 48 (previously amended) Use of fingerprints of contour and 3 –D chromatograms of the constituents as claimed in any of the preceding claims are the basis for identification of chemical constituents.